Available online at www.sciencedirect.com
SCIENCE DIRECT®
ELSEVIER
Journal of Hydrology 304 (2005) 491–492
Journal of Hydrology
www.elsevier.com/locate/jhydrol

Contents of Volume 304

Vol. 304, Nos. 1–4 **March 10, 2005**

Research Papers

Nutrient mobility within river basins: a European perspective
A. L. Heathwaite, G. Billen, C. Gibson, C. Neal, J. Steenvoorden, P. Withers and L. Bolton 1
Inadmissible evidence: knowledge and prediction in land and riverscapes
G. Harris and A. L. Heathwaite 3
Patterns and processes of phosphorus transfer from Irish grassland soils to rivers—integration of laboratory and catchment studies
P. Jordan, W. Menary, K. Daly, G. Kiely, G. Morgan, P. Byrne and R. Moles 20
Effects of grassland management practices and environmental conditions on nutrient concentrations in overland flow
I. Kurz, C. Coxon, H. Tunney and D. Ryan 35
Role of river bed sediments as sources and sinks of phosphorus across two major eutrophic UK river basins: the Hampshire Avon and Herefordshire Wye
H. P. Jarvie, M. D. Jürgens, R. J. Williams, C. Neal, J. J. L. Davies, C. Barrett and J. White 51
Silicon concentrations in UK surface waters
C. Neal, M. Neal, B. Reynolds, S. C. Maberly, L. May, R. C. Ferrier, J. Smith and J. E. Parker 75
Rapid decline of dissolved nitrogen in Finnish lakes
S. Rekolainen, S. Mitikka, J. Vuorenmaa and M. Johansson 94
Water quality of treated sewage effluent in a rural area of the upper Thames Basin, southern England, and the impacts of such effluents on riverine phosphorus concentrations
C. Neal, H. P. Jarvie, M. Neal, A. J. Love, L. Hill and H. Wickham 103
Evaluating diffuse and point phosphorus contributions to river transfers at different scales in the Taw catchment, Devon, UK
F. L. Wood, A. L. Heathwaite and P. M. Haygarth 118
Phosphorus export dynamics from two Swiss grassland catchments
P. Lazzarotto, V. Prasuhn, E. Butscher, C. Crespi, H. Flühler and C. Stamm 139
Temporal and spatial variation of phosphorus input, retention and loss in a small catchment of NE Germany
J. Gelbrecht, H. Lengsfeld, R. Pöthig and D. Opitz 151
Nutrient sources and dynamics in a mediterranean fluvial regime (Ebro river, NE Spain) and their implications for water management
N. J. Torrecilla, J. P. Galve, L. G. Zaera, J. F. Retamar and A. N. A. Álvarez 166
Importance of spatial and temporal patterns for assessment of risk of diffuse nutrient emissions to surface waters
I. Donohue, D. Styles, C. Coxon and K. Irvine 183
A phosphorus budget for Northern Ireland: inputs to inland and coastal waters
R. V. Smith, C. Jordan and J. A. Annett 193
Dissolved organic carbon for upland acidic and acid sensitive catchments in mid-Wales
C. Neal, A. J. Robson, M. Neal and B. Reynolds 203
Annual freshwater river mass loads from Great Britain, 1975–1994: estimation algorithm, database and monitoring network issues
I. G. Littlewood and T. J. Marsh 221
Phosphorus transfer from agricultural areas and its impact on the eutrophication of lakes—two long-term integrated studies from Norway
M. E. Bechmann, D. Berge, H. O. Eggestad and S. M. Vandsemb 238
Assessment of water protection targets for agricultural nutrient loading in Finland
K. Granlund, A. Räike, P. Ekholm, K. Rankinen and S. Rekolainen 251
Effects of large-scale changes in emissions on nutrient concentrations in Estonian rivers in the Lake Peipsi drainage basin
A. Iital, P. Stålnacke, J. Deelstra, E. Loigu and M. Pihlak 261

doi:10.1016/S0022-1694(05)00051-X

Nutrient pressures and ecological responses to nutrient loading reductions in Danish streams, lakes and coastal waters
B. Kronvang, E. Jeppesen, D. J. Conley, M. Søndergaard, S. E. Larsen, N. B. Ovesen and J. Carstensen 274
Effects of lowering nitrogen and phosphorus surpluses in agriculture on the quality of groundwater and surface water in the Netherlands
O. Oenema, L. van Liere and O. Schoumans 289
A statistical method for source apportionment of riverine nitrogen loads
B. Grizzetti, F. Bouraoui, G. de Marsily and G. Bidoglio 302
Methods to predict the agricultural contribution to catchment nitrate loads: designation of nitrate vulnerable zones in Northern Ireland
C. Jordan and R. V. Smith 316
Scaling issues relating to phosphorus transfer from land to water in agricultural catchments
R. E. Brazier, A. L. Heathwaite and S. Liu 330
Model-based coefficient method for calculation of N leaching from agricultural fields applied to small catchments and the effects of leaching reducing measures
K. Kyllmar, K. Mårtensson and H. Johnsson 343
Development, validation and application of Danish empirical phosphorus models
H. E. Andersen, B. Kronvang and S. E. Larsen 355
Evaluation of two hybrid metric-conceptual models for simulating phosphorus transfer from agricultural land in the river enborne, a lowland UK catchment
R. M. S. Smith, D. J. Evans and H. S. Wheater 366
Modelling the eutrophication of the Seine Bight (France) under historical, present and future riverine nutrient loading
P. Cugier, G. Billen, J. F. Guillaud, J. Garnier and A. Ménesguen 381
Nutrient dynamics and control of eutrophication in the Marne River system: modelling the role of exchangeable phosphorus
J. Garnier, J. Némery, G. Billen and S. Théry 397
Modelling nitrogen fluxes from the land to the coastal zone in European systems: a perspective from the INCA project
A. J. Wade, C. Neal, P. G. Whitehead and N. J. Flynn 413
Identifying critical source areas for phosphorus loss in Ireland using field and catchment scale ranking schemes
K. J. Hughes, W. L. Magette and I. Kurz 430
Modelling and managing critical source areas of diffuse pollution from agricultural land using flow connectivity simulation
A. L. Heathwaite, P. F. Quinn and C. J. M. Hewett 446
A decision support tool for simulating the effects of alternative policies affecting water resources: an application at the European scale
A. Fassio, C. Giupponi, R. Hiederer and C. Simota 462
Nutrient mobility within river basins: a European perspective
C. Neal and A. L. Heathwaite 477